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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/699,592	10/31/2003	Rick Kerner	10739.14.185	1883

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EXAMINER

BOTTORFF, CHRISTOPHER

ART UNIT	PAPER NUMBER
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3618

DATE MAILED: 09/09/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/699,592

Applicant(s)

KERNER ET AL.

Examiner

Christopher Bottorff

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 31 October 2003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-36 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 10-12 is/are allowed.
- 6) ☒ Claim(s) 1, 2, 4, 6-8, 13-24, 27-30 and 33-35 is/are rejected.
- 7) ☒ Claim(s) 3, 5, 9, 25, 26, 31, 32 and 36 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 05 April 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 2/19/04.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Information Disclosure Statement

The information disclosure statement (IDS) submitted on February 19, 2004 was considered by the examiner.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 13-22 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 13 and 20 each define inlet openings and outlet apertures in lines 13 and 13. However, the claims later refer in the singular to "the airflow outlet aperture" (claim 13, lines 15-17) and "the airflow inlet opening" (claim 20, lines 15-16) without stating which of the plural apertures or openings is specifically defined. For the purposes of examination, the claims are interpreted as referring to any one of the plural inlet openings and outlet apertures.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

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A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claim 4 is rejected under 35 U.S.C. 102(b) as being anticipated by Suzuki US 3,970,164.

Suzuki discloses a snowmobile 10 comprising a longitudinally extending chassis having a front portion and a rear portion. See Figure 1. The chassis supports a liquid-cooled engine 20 proximate the front portion and an operator seat 58 proximate the rear portion. The engine 20, being liquid cooled, includes coolant passages for carrying liquid coolant that absorbs heat generated by the engine 20 during operation and the engine 20 powers a drive track 54 operatively connected to the chassis proximate the rear portion. The chassis front portion mounts a pair of steerable skis 48 and supports a body assembly 12, 14, which contains the engine 20 and a heat exchanger 24. The heat exchanger 24 is housed within the body assembly, is connected in fluid communication with the engine coolant passages, and is adapted to dissipate heat from the liquid coolant. The body assembly has airflow inlet openings and outlet apertures for allowing ambient air into and out of the body assembly and in contact with the heat exchanger (see column 3, lines 32-47), and the body assembly is formed by an upwardly open nosepan 12 covered by a hood 14. Also, the heat exchanger 24 is located forward of the engine 20.

Claims 13 and 18 are rejected under 35 U.S.C. 102(b) as being anticipated by Tanaka US 5,174,258.

Tanaka discloses a snowmobile comprising a longitudinally extending chassis having a front portion and a rear portion. See Figure 1. The chassis supporting a liquid-cooled engine 16 proximate the front portion and an operator seat 18 proximate the rear portion. The engine 16 including coolant passages for carrying liquid coolant that absorbs heat generated by the engine 16 during operation and the engine powers a drive track 31 operatively connected to the chassis proximate the rear portion. The chassis front portion mounts a pair of steerable skis 23 and supports a body assembly 12, which contains the engine 16 and a heat exchanger 62. The heat exchanger 62 is housed within the body assembly 12, is connected in fluid communication with the engine coolant passages, and is adapted to dissipate heat from the liquid coolant. See Figure 4. The body assembly 12 has airflow inlet openings 73, 77 and outlet apertures 74 and the openings directly to the rear of inlets 77 on the body for allowing ambient air into and out of the body assembly and in contact with the heat exchanger, and the body assembly is formed by an upwardly open nosepan 15 covered by a hood 14. See Figures 1-4. An airflow outlet aperture (the opening directly to the rear of inlets 77 on the body, which are depicted forward of numerals 45 and 46 in Figure 1 and adjacent the corresponding airflow arrows in Figure 2) is in the nosepan 15 and the radiator 62 is located forward of the outlet aperture. See Figures 1-4. Air flowing out the outlet aperture during forward movement of the snowmobile is not directed upwardly rearward towards the operator, but is directed away from the operator. See the airflow arrows in Figure 2.

Claims 23, 24, 27-30 and 33-35 are rejected under 35 U.S.C. 102(b) as being anticipated by Inagawa et al. US 5,251,718.

Inagawa et al. disclose a snowmobile 11 comprising a longitudinally extending chassis having a front portion and a rear portion. See Figure 1. The chassis supporting a liquid-cooled engine 16 proximate the front portion and an operator seat 18 proximate the rear portion. The engine 16 including coolant passages for carrying liquid coolant that absorbs heat generated by the engine during operation and the engine powers a drive track 31 operatively connected to the chassis proximate the rear portion. See Figures 1 and 4. The chassis front portion mounts a pair of steerable skis 23 and supports a body assembly 12, which contains the engine 16 and a heat exchanger 62. The heat exchanger 62 is housed within the body assembly 12, is connected in fluid communication with the engine coolant passages, and is adapted to dissipate heat from the liquid coolant. See Figure 4. The body assembly 12 has airflow inlet openings and outlet apertures for allowing ambient air into and out of the body assembly, and one or more of the airflow inlet openings is in contact with the heat exchanger. See Figures 1-4 and column 5, line 64, through column 6, line 50. The body assembly includes a first airflow inlet opening 85 allowing ambient air into a first cavity within the body assembly. See Figures 3 and 4. The first cavity contains the heat exchanger 62, and the ambient air entering the first cavity through the first airflow inlet opening 85 does not contact the engine. The first cavity is separated from a second cavity within the body assembly by divider 86, 87, 94. See Figure 4 and column 5, line 64, through column 6, line 50. The second cavity contains the engine 16, and ambient air entering the second cavity does

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not contact the heat exchanger 62. A second airflow inlet opening (depicted adjacent struts 24 in Figure 3 and adjacent the letter "A" in Figure 4) allows ambient air into the second cavity. See column 3, lines 59-67, and in US 5,174,258 (Tanaka), which is incorporated by reference, see column 5, line 65, through column 6, line 4.

The first and second cavities have separate airflow outlet apertures in the body assembly. See Figures 1-4. The divider 86, 87, 94 directs the ambient air entering the first air inlet opening into the first cavity and directs the ambient air entering the second air inlet opening into the second cavity. See Figure 4. Also, the body assembly is located proximate the front portion of the chassis.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 2, and 6-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Morii et al. US 6,644,261 in view of Suzuki US 3,970,164.

Morii et al. disclose a snowmobile 1 comprising a longitudinally extending chassis having a front portion and a rear portion. See Figure 1. The chassis supports a liquid-cooled engine 2 proximate the front portion and an operator seat 22 proximate the rear portion. The engine 2 includes coolant passages for carrying liquid coolant that absorbs heat generated by the engine 2 during operation and the engine 2 powers a drive track

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15 operatively connected to the chassis proximate the rear portion. The chassis front portion mounts a pair of steerable skis 13 and supports a body assembly 29, which contains the engine 2 and a heat exchanger 70b. The heat exchanger 70b is housed within the body assembly 29, is connected in fluid communication with the engine coolant passages, and is adapted to dissipate heat from the liquid coolant. In order to dissipate heat at the heat exchanger 70b, the body assembly 29 has airflow inlet openings and outlet apertures for allowing ambient air into and out of the body assembly and in contact with the heat exchanger. The heat exchanger 70b and the engine 2 each define a center of mass, with the heat exchanger center of mass below the engine center of mass.

In particular, the heat exchanger center of mass is below a belt line of the snowmobile, which is formed by the upper plane of track belt 15, and the heat exchanger 70b is positioned at least one inch below the engine center of mass. See Figure 1.

Morii et al. do not disclose that the body assembly is formed by an upwardly open nosepan covered by a hood, with the heat exchanger contained completely within the nosepan. However, Suzuki teaches the desirability of forming a snowmobile body assembly by an upwardly open nosepan 12 covered by a hood 14. See Figure 1. From this teaching of Suzuki, forming the body assembly of Morii et al. by an upwardly open nosepan covered by a hood would have been obvious to one of ordinary skill in the art at the time the invention was made in order to allow convenient access to the engine

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for maintenance. Furthermore, the position of the heat exchanger would be as desired by Morii et al., thereby containing the heat exchanger completely within the nosepan.

Allowable Subject Matter

Claims 10-12 are allowed. Claims 20-22 would be allowable if rewritten or amended to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action. Claims 3, 5, 9, 25, 26, 31, 32, and 36 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. Claims 14-17 and 19 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

The prior art does not suggest the combinations defined by these claims. In particular, the required position of the heat exchanger, the required positions of the airflow inlet and outlet openings, and required the adjustability of the divider are not suggested in combination with the further limitations of the claims. Thus, these claims distinguish Applicants' invention over the prior art.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Fields et al., Aoshima, Marier et al., Vaillancourt et al., and Yatagai et al. disclose various snowmobile configurations.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christopher Bottorff whose telephone number is (571) 272-6692. The examiner can normally be reached on Mon.-Fri. 7:30 a.m. - 4:00 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chris Ellis can be reached on (571) 272-6914. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Christopher Bottorff